CLAIMS

1. A method for testing software in a portable device having a secure software environment, the device having a device identifier and a root key of a public certificate authority, the method comprising:

sending a request for a development certificate to the public certificate authority, the request including the device identifier and being signed with a developer's certificate including a developer identifier, the sending performed by a software developer;

receiving the development certificate at the software developer, the development certificate specifying the developer identifier, a development parameter, and the device identifier;

signing a software application to be tested in the portable device with the development certificate, thereby providing a signed software application;

loading the signed software application onto the portable device;

authenticating the development certificate with the public certificate authority, performed by the portable device;

executing the software application only if the device identifier of the development certificate matches the device identifier of the portable device, and the development parameter is valid.

2. A method for testing software in a portable device as defined by claim 1, wherein the development parameter includes a validity period, the authenticating includes authenticating the validity period.

3. A method for testing software in a portable device as defined by claim 1, wherein the development parameter includes a download counter, the authenticating includes determining if the download counter has been exceeded.

4. A method for testing software in a portable device as defined by claim 1, wherein the loading is performed over an air interface between the portable device and a wireless communication system.

5

5. A method for permitting debugging and testing of software on a mobile communication device having a secure software environment, the mobile communication device having a device identifier, the method comprising:

generating a development certificate for the mobile communication device, the development certificate including the device identifier and a development parameter, the generating performed by a public certificate authority;

signing a software application to be tested in the mobile communication device with the development certificate, thereby providing a signed software application;

loading the signed software application onto the portable device;

authenticating the development certificate with the public certificate authority, performed by the mobile communication device; and

executing the software application only if the device identifier of the development certificate matches the device identifier of the portable device, and the development parameter is valid.

6. A method for testing software in a portable device as defined by claim 5, wherein the generating comprises including a validity period for the development certificate in the development parameter, the authenticating includes authenticating the validity period.

7. A method for testing software in a portable device as defined by claim 5, wherein the generating comprises including a time of day period for the development certificate in the development parameter, the authenticating includes authenticating the time of day.

8. A method for testing software in a portable device as defined by claim 5, wherein the generating comprises including a download counter for the development certificate in the development parameter, the authenticating includes determining if the download counter has been exceeded.

9. A method for testing software in a portable device as defined by claim 5, wherein the loading is performed over an air interface between the portable device and a wireless communication system.

10. A method for testing software in a portable device as defined by claim 5 wherein the generating comprises generating the development certificate when the device identifier is an international mobile equipment identifier of the mobile communication device.

11. A method for testing software in a portable device as defined by claim 5, further comprising disabling the software application if the authenticating fails.

12. A method for testing software in a portable device as defined by claim 5, wherein the signing comprises signing the software application in a byte code format.

13. A method of generating a development certificate for use in testing a software application in a mobile communication device having a device identifier, comprising:

receiving a request, from a developer, at a public certificate authority, for the development certificate, the request including the device identifier and a development parameter, and being signed with a developer's certificate including a developer identifier;

generating, with a private key of public certificate authority, the development certificate, and including the development parameter and the device identifier.

14. A method for testing software in a portable device as defined by claim 13, wherein the generating comprises including a validity period for the development certificate in the development parameter.

15. A method for testing software in a portable device as defined by claim 13, wherein the generating comprises including a time of day period for the development certificate in the development parameter.

16. A method for testing software in a portable device as defined by claim 13, wherein the generating comprises including a download counter for the development certificate in the development parameter.

17. A method for testing software in a portable device as defined by claim 13, wherein the loading is performed over an air interface between the portable device and a wireless communication system.

18. A method for testing software in a portable device as defined by claim 13 wherein the generating comprises generating the development certificate when the device identifier is an international mobile equipment identifier of the mobile communication device.